



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Sriram Ramani et al.

GROUP ART UNIT: 1754

SERIAL NO.: 10/758,465

FILED: January 15, 2004

FOR: Process for the Catalytic  
Oxidation of H<sub>2</sub>S Using Staged  
Addition of Oxygen

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EXAMINER: Vanoy, Timothy C.

**INFORMATION DISCLOSURE STATEMENT**

Atty. Dkt. No.: 1856-37500

Date: January 30, 2006

Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

This Information Disclosure Statement, including completed Form PTO-1449, comprises a list of pertinent art of which Applicants are aware.

The submission of this Information Disclosure Statement and the references submitted therewith is not an admission that the art cited is "prior" with respect to the present invention, nor is it a representation, that no better art exists. Applicants hereby reserve the right to swear behind or otherwise disprove any alleged "prior" nature of any art cited should the facts support and the situation warrant such an action. It is submitted that the art cited does not constitute a bar to the patentability of Applicants' invention under 35 U.S.C. § 102 or § 103.

A first Office Action on the merits has been received in the present application. Accordingly, please charge Deposit Account 03-2769 of Conley Rose, P.C., Houston, Texas in the amount of \$180, so that this Supplemental Information Disclosure Statement may be considered under Rule 1.97(c).

Respectfully submitted,

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Form PTO 144 (Modified)

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

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Atty. Docket No.  
1856-37500Serial No.  
10/758,465Applicant  
Sriram RAMANI et al.Filing Date  
01/15/04Group  
1754

## REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	AA	1,930,716	10/1933	Jaegar	260	57	
	AB	2,963,348	06/1957	Sekkers	23	225	
	AC	4,038,036	07/1977	Beavon	23	262	
	AD	4,197,277	04/1980	Sugier et al.	423	231	
	AE	4,219,445	08/1980	Finch	252	443	
	AF	4,271,041	06/1981	Boudart	252	438	
	AG	4,279,882	07/1981	Beavon	423	574	
	AH	4,311,683	01/1982	Hass, et al.	423	573	
	AI	4,325,842	04/1982	Slaugh	252	443	
	AJ	4,325,843	04/1982	Slaugh	252	443	
	AK	4,326,992	04/1982	Slaugh	252	443	
	AL	4,331,544	05/1982	Takaya	252	443	
	AM	4,406,873	09/1983	Beavon	423	574	
	AN	4,481,181	11/1984	Norman	423	574	
	AO	4,596,699	06/1986	Desgrandchamps	422	160	
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	AR	4,889,701	12/1989	Jones, et al.	423	220	
	AS	4,891,187	01/1990	Jungfer, et al.	423	248	
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	AU	5,232,467	08/1993	Child et al.	48	127.3	
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	BC	5,639,929	06/1997	Bharadwaj, et al.	585	658	
	BD	5,648,582	07/1997	Schmidt	585	652	
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	BF	5,654,491	08/1997	Goetsch	568	469.9	
	BG	5,676,921	10/1997	Heisel, et al.	423	573.1	
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	BF	5,720,901	02/1998	De Jong, et al.	252	373	
	BT	5,807,410	09/1998	Borsboom	23	293	
	BK	5,814,293	09/1998	Terorde, et al.	423	576	
	BE	5,891,415	04/1999	Alkhazov, et al.	423	573.1	
	BM	5,897,850	04/1999	Borsboom	423	576.2	
	BN	5,985,178	11/1999	Long et al.	252	373	
	BO	6,017,507	01/1900	Nougayrede, et al.	423	573.1	
	BP	6,083,471	07/2000	Philippe, et al.	423	573.1	
	BQ	6,099,819	08/2000	Srinivas, et al.	423	573.1	
	BR	6,103,206	08/2000	Taylor, Jr., et al.	423	210	
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	BV	6,579,510	06/2003	Keller	423	573.1	
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	BX	6,726,850	04/2004	Reyes et al.	252	373	01/2000
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	BZ	2002/0098145	07/2002	Borsboom et al.	423	576.8	

EXAMINER

DATE CONSIDERED

Form PTO-1449 (Modified)				Atty. Docket No. 1856-37500		Serial No. 10/758,465	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use several sheets if necessary)				Applicant Sriram RAMANI et al.			
				Filing Date 01/15/04		Group 1754	
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP '609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							
<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY</b>	<b>CLASS</b>	<b>SUB-CLASS</b>	<b>Translation YES      NO</b>
	CA	842894	05/1998	EP	C01	B3/38	
	CB	9421358	09/1994	WO	B01	D53/36	Abstract
	CC	02006154	01/24/02	WO	C01	B3/38	Abstract
<b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	CD	S.W. Chun et al., Selective oxidation of H <sub>2</sub> S to elemental sulfur over TiO <sub>2</sub> /SiO <sub>2</sub> catalysts, <i>Applied Catalysis B: Environmental</i> 16:235-243 (1998).					
	CE	B.W. Gamson and R.H. Elkins, Sulfur from Hydrogen Sulfide, <i>Chem Eng. Prog.</i> 4: 9: 203-215, 1953					
	CF	R.H. Hass, et al, Process meets sulfur recovery needs, <i>Hydrocarbon Processing</i> 104-107 (1981)					
	CG	J. B. Hyne, Methods for desulfurization of effluent gas streams, <i>Oil &amp; Gas Journal</i> , 64-78 (1972)					
	CH	Z.R. Ismagilov, et al, New Catalysts and Processes For Environment Protection, <i>React. Kinet. Catal. Lett.</i> , Vol. 55, No. 2, 489-499 (1995)					
	CI	Richard K. Kerr, et al, A new sulfur-recovery process: the RSRP, <i>Oil &amp; Gas Journal</i> 230-243 (1982)					
	CJ	J.A. Lagas, et al, Selective-oxidation catalyst improves Claus process, <i>Oil &amp; Gas Journal</i> , 68-71 (1988)					
	CK	Kuo-Tseng Li and Ni-Shen Shyu, Catalytic Oxidation of Hydrogen Sulfide to Sulfur on Vanadium Antimonate, <i>Ind. Eng. Chem. Res.</i> 1480-1484 (1997)					
	CL	S. Tummala, Staged Catalysts for Millisecond Contact Time Reactions, a Thesis Submitted to the Faculty of the Graduate School of the University of Minnesota, September 2000, <a href="http://www.rz.uni-karlsruhe.de/~cf01/download/docs/doc_02_Tummala_PhDThesis.pdf">http://www.rz.uni-karlsruhe.de/~cf01/download/docs/doc_02_Tummala_PhDThesis.pdf</a>					
	CM	R.W. Watson, et al., The Successful Use of Oxygen in Claus Plants, <i>HTI Quarterly</i> : Winter 1995/1996, pp. 95-101.					
	CN	PCT Search Report in PCT/US05/01027 dated December 14, 2005.					
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP '609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							